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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/088,732

07/22/2002

Karl Heinz Schmid

C 2078 PCT/US

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05/04/2005

COGNIS CORPORATION
PATENT DEPARTMENT
300 BROOKSIDE AVENUE
AMBLER, PA 19002

EXAMINER

COTTON, ABIGAIL MANDA

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,732

Applicant(s)

SCHMID ET AL.

Examiner

Abigail M. Cotton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 27, 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's response filed October 27, 2004 is acknowledged. Applicant's arguments with respect to claims 13-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,432,419 to Kahre et al, issued on August 13, 2002, in combination with Burns (DCI, March 1997.)

Kahre et al. teaches a cosmetic composition having a nonionic surfactant selected from the group of alkyl or alkenyl oligoglycosides and a fatty compound of hydroxycarboxylic acid esters (see column 9, lines 20-59, in particular.) Kahre et al. further teaches that the fatty compound and nonionic surfactant may be in a ratio by weight of 40:60 to 60:40 to improve sensorial properties (see column 3, lines 36-44, in

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particular.) Kahre et al. also teaches that suitable hydrocarboxylic esters are esters of malic acid, tartaric acid and citric acid, with aliphatic alcohols containing 1 to 22 carbons (see column 3, lines 15-34, in particular.) Accordingly, Kahre et al. teaches a composition having an alkyl or alkenyl glycoside and an ester of malic acid, tartaric acid or citric acid with a C₆–C₂₂ fatty alcohol, in a ratio by weight of 40:60 to 60:40, as recited in claims 13 and 19.

The hydroxycarboxylic ester teachings of Kahre et al. also include the recited “partial ester” forms as in the instant claims, as the term “ester” encompasses both fully esterified as well as partially esterified forms. While Kahre et al. discloses that the hydroxycarboxylic acid ester may be in the form of an oil, an oil is by definition a mixture of different compounds, such as different esterified forms, and thus includes partial ester forms. Kahre et al. does not teach that the oil is limited to only fully esterified hydroxycarboxylic acids. Furthermore, one of ordinary skill in the art would recognize that the fabrication of an oil having esters of di-carboxylic acids such as malic or tartaric acid will yield a mixture of both full and partial esters. Accordingly, as Kahre et al. teaches providing esters of the recited acids, namely malic, tartaric and citric acids, and does not teach that the composition is limited to only full esters, the composition of Kahre et al. is interpreted as obviously comprising the claimed partial ester forms.

Regarding claims 14, 17, 18, 20, 23, 24, Kahre et al. teaches providing an ester with aliphatic alcohols containing 6 to 18 carbon atoms (see column 3, lines 15-19, in

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particular.) Kahre et al. also teaches that it is preferred to use short-chain hydroxycarboxylic acids, such as malic acid, tartaric acid or citric acid, with long-chain fatty alcohols, such as cocofatty alcohol or cetearyl alcohol (see column 3, lines 29-34, in particular.)

Regarding claims 15 and 21, Kahre et al. teaches a preferred embodiment having an ester with a cocofatty alcohol (see column 3, lines 29-34, in particular), and also that alkyl oligoglucosides based on hydrogenated C_{12/14} coconut oil fatty alcohol are preferred (see column 4, lines 30-33, in particular.) Regarding claims 25-27, Kahre et al. teaches the surfactant mixture amounts (see column 8, lines 15-65, in particular.)

As discussed above, Kahre et al. does not teach specific partially esterified forms, and does not teach salt forms.

Burns teaches ultra mild natural surfactants (see page 42, second full paragraph, in particular.) Regarding claims 13 and 19, Burns teaches that the surfactants are esters of alkylpolyglucosides, such as alkyl polyglucose citrate and alkyl polyglucose tartrate (see page 42, second and third full paragraphs, and chemical structures for Eucarol AGE-ET and Eucarol AGE-EC on page 42, in particular.) Thus, Burns teaches a composition with an alkyl oligoglycoside, as recited in the instant claims.

The instant claims further recite partial esters of tartaric, malic and citric acid with C₆₋₂₂ fatty alcohols. A fatty alcohol is a long-chain alcohol, i.e. a carbon chain typically having more than 6 carbons and at least one OH group. The polyglucoside groups taught by Burns have more than 6 carbons and a least one OH group (see Chemical Structures, page 42, in particular), and thus the polyglucoside groups fall within the definition of fatty alcohols. Burns furthermore teaches polyglucoside groups having between 6 to 22 carbons (see Chemical Structures, page 42, in particular.) Accordingly, Burns teaching of citric and tartaric esters of alkyl polyglucosides constitutes a teaching of partial esters of citric or tartaric acid with C₆-C₂₂ fatty alcohols, as recited in claims 13 and 19.

Regarding claims 14, 17, 20 and 23, Burn teaches providing an ester of citric or tartaric acid with a C₁₀-C₁₈ fatty alcohol (see Chemical Structures, page 42, in particular.) Regarding claims 15 and 21, Burns teaches an alkyl oligoglycoside and foam stabilizer derived from the same type of fatty alcohol (see Chemical Structures, page 42, in particular.) Regarding claims 16 and 22, Burns teaches providing citric and tartaric acid sodium salts (see Chemical Structures, page 42.) Regarding claims 25-27, Burns teaches providing compositions having 2.2-18.5% of the surfactants (see page 50, in particular.)

Burns does not teach a ratio of 60:40 to 40:60 of oligoglycoside to foam stabilizer as in the claim. Burns also does not specifically teach a partial ester of malic acid.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the esters of tartaric, malic or citric acid and fatty alcohols as in Kahre et al, in the form of the specific partial esters or partial ester salts as taught in Burns, because of the expectation of achieving a mild surfactant product as taught by Burns. Thus, the combination of Kahre et al. and Burns renders the claimed partial ester and salt forms of citric acid, malic acid and tartaric acid obvious.

It would furthermore have been obvious to one of ordinary skill in the art at the time the invention was made to provide a composition having an oligoglucoside and partial tartaric acid salt, according to Burns, in the ratio of 60:40 to 40:60 as in the instant claims because Kahre et al. teach that combining a fatty compound (tartaric acid) and a nonionic surfactant (oligoglycoside) in this ratio results in a product with improved sensorial properties. Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Thus, one of ordinary skill in the art would have been motivated to formulate the oligoglycoside to foam stabilizer ratio recited in the instant claims because of the expectation of achieving a mild surfactant that imparts improved sensorial properties.

One of ordinary skill in the art would furthermore have found it obvious to substitute an ester of malic acid, as taught by Kahre et al, for the ester of citric or tartaric

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acid of Burns, because Kahre et al. teaches that malic acid, tartaric acid and citric acid are interchangeable and combinable.

It is respectfully pointed out that instant claims 14 and 21 are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed Cir. 1985). See MPEP 2113.

Claims 19-27 are directed to a method of enhancing the dermatological and ophthalmic mucous membrane compatibility of a cosmetic and/or pharmaceutical composition by adding the surfactant mixture to the composition. Since the combined teachings of Kahre et al. and Burns renders the claimed composition obvious, the property of such a claimed composition will also be rendered obvious by the prior art teachings, since the properties, namely the enhancement of the mucous membrane compatibility, are inseparable from its composition. Therefore, if the prior art teaches the cosmetic composition or renders the cosmetic composition obvious, then the properties are also taught or rendered obvious by the prior art. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990.) See MPEP 2112.01. The burden is

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shifted to Applicant to show that the prior art product does not possess or render obvious the same properties as the instantly claimed product.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 13-15, 17-21, 23-24 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,432,419 to Kahre et al, issued on August 13, 2002.

Although the conflicting claims are not identical, they are not patentably distinct from each other because Kahre et al. claims a composition having an alkyl or alkenyl oligoglycoside and a hydroxycarboxylic acid in a ratio by weight of the glycoside to the hydroxycarboxylic acid of from 90:10 to 10:90. The composition of the instant claims comprising the alkyl or alkenyl oligoglycoside, and partial esters of tartaric, malic and citric acid with C₆-C₂₂ fatty alcohols in a ratio by weight of 60:40 to 40:60 are obvious over, and thus not patentably distinct over the composition recited in these claims, for at least the reasons described above. Kahre et al. furthermore claims hydroxycarboxylic acids having 3 to 18 carbon atoms with aliphatic alcohols having 1 to 22 carbon atoms, and weight ratios of the compositions, rendering instant claims 14-15, 17-21 and 23-24 obvious and not patentably distinct over the prior patent.

Response to Arguments

Applicant's arguments filed October 27, 2004 have been fully considered but they are not persuasive.

With respect to Applicant's argument that Burns does not teach providing a mixture of alkyl oligoglycoside with a partial ester of tartaric, malic or citric acids with a C₆₋₂₂ fatty alcohol: Burns teaches providing a composition having an alkyl oligoglucoside and a partial ester of tartaric acid or citric acid, as discussed above.

Regarding Applicant's argument that Kahre et al. teaches hydroxy carboxylic acid esters that are oils, or full esters, but does not teach partial esters of these acids: Kahre et al. et al. teaches providing cosmetic compositions having esters of tartaric, malic or citric acid with an alcohol having 1 to 22 and preferably 6 to 18 carbons, as in the instant claims. As the term "ester" encompasses both partial and full ester forms, and because fabrication of an ester oil would inherently yield a mixture of partial and fully esterified forms, the composition of Karhe et al. is interpreted as inherently comprising partial esters of the recited acids, absent any indication by Kahre et al. to the contrary. Furthermore, as Burns teaches providing partial esters of tartaric and citric acid to form ultra-mild surfactants, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the esters of Karhe et al. in the form of partial esters, with the expectation of achieving a product with reduced irritation to the skin.

Regarding Applicant's assertion of showing unexpected results in Table 1: Table 1 of Applicant's specification does not show results that are unexpected over the combined teachings of Burns and Kahre et al, and furthermore does not show unexpected results that are commensurate in scope with the claimed invention.

Regarding the scope of the claimed invention, it should be noted that evidence of any unexpected results must be reasonably commensurate in scope with the claimed invention. See, e.g., *In re Kulling*, 897 F.2d 1147, 1149, 14 USPQ2d 1056, 1058 (Fed. Cir. 1990); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 777 (Fed. Cir. 1983).

Table 1 of Applicant's specification compares the foaming capacity and total irritation of (I) mixtures of cocoalkyl oligoglucosides with partial esters of malic or tartaric acid with lauryl alcohol (Examples 1, 2, 4 and C4), (II) mixtures of cocoalkyl oligoglucosides with a full ester of citric acid (Example 3), and (III) cocoalkyl oligoglucosides alone (Examples C1, C2 and C3). Thus, the Table 1 shows results for a comparison between, for example, a composition of a cocoalkyl oligoglucoside (C_{12/C14}, e.g.) alone, versus a composition having a mixture of a cocoalkyl oligoglucoside (C_{12/C14}, e.g.) and either tartaric acid monolauryl ester or malic acid monolauryl ester.

In contrast, the instant claims recite a mixture of an alkyl and/or oligoglycoside and a foam stabilizer that is selected from a partial ester of tartaric, malic and/or citric acid with a C₆₋₂₂ fatty alcohol. Thus, the examples of Table 1 are not commensurate in scope with the claimed subject matter because the claims broadly recite oligoglycosides and esters of acids with a range of fatty alcohols, whereas the examples shown in Table 1 are limited to a specific oligoglycoside, namely cocoalkyl oligoglycoside, and are also

limited to more specific esters, namely partial esters of lauryl alcohol with malic or tartaric acid. Accordingly, as the results shown in Table 1 are not commensurate with the scope of the subject matter being claimed, the results are not sufficient to show non-obviousness of the more broadly claimed subject matter.

The data in Table 1 furthermore does not support a showing of unexpected results for the recited mixture of an alkyl and/or alkenyl oligoglycoside and a partial ester of citric, malic or tartaric over the compositions taught by Burns and Kahre et al. Burns teaches an alkyl oligoglucoside with a partial ester of tartaric or citric acid and a fatty alcohol, as in the instant claims. Burns does not teach the recited ratio of oligoglucoside to foam stabilizer, although this deficiency is made up for by Kahre et al. Table 1 shows foaming and irritation results for different ratios of the same oligoglucoside (C_{12/14} cocoalkyl oligoglucoside) to the same partial ester (tartaric acid monolauryl ester) (Examples 1 and 4.) The results show that the decreasing the amount of partial ester with respect to oligoglucoside only slightly decreases the basic foam and foam height, and also only slightly increases the irritation. The relatively small magnitude changes appear to be within a range that would be expected to one of ordinary skill in the art, and Applicant has not provided any data that demonstrate otherwise. Thus, the results shown in Table 1 are not sufficient to overcome a rejection on the basis of obviousness over Burns. It should be noted that a showing of unexpected results must be based on evidence, not argument or speculation. In re Mayne, 104 F.3d 1339, 1343-44, 41 USPQ2d 1451, 1455-56 (Fed. Cir. 1997)

The results of Table 1 furthermore do not support a showing of unexpected results over the composition taught by Kahre et al. Kahre et al. teaches a composition having an alkyl or alkenyl oligoglycoside, and a hydroxycarboxylic acid ester. Kahre et al. does not teach providing a specific partial ester, although the composition of Kahre et al. is interpreted as inherently comprising partial ester forms, and motivation for providing a partial ester form is furthermore suggested by Burns. Table 1 shows that the tartaric acid monolaurylester of (I) (Example 1, partial ester) has the same foam height but less irritation than the citric acid dicocoyl ester of (II) (Example 3, full ester), when used with the same cocoalkyl oligoglucoside (C_{12/14} cocoalkyl oligoglucoside). However, this comparison of (I) with (II) does not constitute a controlled test of the foaming capability and total irritation of partial esters versus full esters. Not only is the extent of esterification (partial or full) changed between (I) and (II), but the acids and alcohols tested in each example are also different (tartaric and lauryl in (I), and citric and cocoyl in (II).) While it is possible that the conversion from full to partial ester has resulted in the lower irritation score in Example 1, it is also possible that substituting tartaric acid for citric acid, or lauryl alcohol for dicocoyl alcohol, resulted in the lower irritation score.

Moreover, the irritation score and foaming capability of the citric acid dicocoyl ester/oligoglucoside mixture of Example 3 appears to be well within the ranges of those given by the partial esters/oligoglucoside mixtures of Examples 1, 2 and 4. Example 3

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resulted in a foam height that was the equivalent of that Example 1 and larger than the foam height of Example 4. The basic foam measure of Example 3 was slightly lower than Examples 1 and 2, but greater than that of Example 4. The total irritation of Example 3 was slightly higher than Example 1, but lower than Examples 3 and 4.

Moreover, the differences between Examples 1, 2, 3 and 4 in basic foam, foam height and total irritation appear to be within a fairly close range of one another, and thus do not exhibit values that would be "unexpected" to one of ordinary skill in the art.

Accordingly, the results shown in Figure 1 do not demonstrate unexpectedly good results for mixtures of partial esters with oligoglycosides over mixtures of full esters with oligoglycosides, and thus does not show unexpectedly good results over the teachings of Kahre et al.

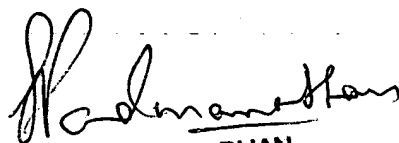
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abigail M. Cotton whose telephone number is (571) 272-8779. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMC


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